By Bryan Schneider

This week, the U.S. Centers for Disease Control (CDC) and Prevention has announced a bold step to enhance public-health preparedness for diseases transmitted by mosquitoes and ticks in the nation’s Southwest. With an $8 million grant from the CDC, UC Riverside and UC Davis researchers will launch the Pacific Southwest Regional Center of Excellence in Vector-Borne Diseases later this month.

“This Center of Excellence will bring together researchers using the latest cutting-edge approaches in the laboratory and field with practitioners protecting public health,” said UC Riverside Professor of Entomology and Center Co-Director William Walton. “[This will allow us] to develop a community of practice and provide new technologies to prevent the occurrence of vector-borne diseases.”

The strength of the collaboration between the two UC campuses is drawing from multiple disciplines to address the challenges of vector-borne pathogens, which are transmitted by insects and other organisms. Both are top-tier research and teaching institutions with leading experts in vector-borne diseases, including entomologists, epidemiologists, virologists, and computer scientists who train a diverse group of scholars interested in public health.

“This Center of Excellence in Vector Biology that ourselves and our colleagues at UC Davis will spearhead will greatly enable the integration of multiple approaches to vector control that our faculty are researching with training and implementation in the public health arena in our region. We have a very, very strong team,” said UC Riverside Professor of
Richard Redak, professor and chair of the UCR Department of Entomology, called the collaboration “a fantastic opportunity for UCR and UCD scientists to pool their collective expertise to find solutions to arthropod transmitted diseases while at the same time developing training programs to manage these diseases.”

“The southwestern U.S. is facing many new challenges in recent years from invasive mosquitoes and emerging pathogens, such as Zika virus, and we urgently need better options for their control,” said UC Davis epidemiologist and Center Co-Director Chris Barker. “Funding for this center will enable important research to optimize the tools we have and to look for new ways forward, while training the next generation of public-health scientists.”

The Center’s funding begins later this month and continues through the end of 2021. The Center has three goals: to conduct applied research to develop and test effective prevention and control tools for vector-borne disease outbreaks; to train vector biologists, entomologists, and physicians to address vector-borne disease concerns and to strengthen and expand collaboration among academic communities and public health organizations at federal, state and local levels.

UC Davis and UC Riverside already have strong collaborations with the California Department of Public Health (CDPH) and Mosquito and Vector Control Association of California (MVCAC), who will be critical partners in the Center.

“CDC’s support will enable us to build on these partnerships to ensure that our region of the U.S. will be ready to respond to future threats from vector-borne diseases,” Barker said.